



Digital Terrain Elevation Data Levels 0 to 5 (DTED Levels 0 to 5)

Description and Background

DTED was originally developed in the 1970s to support aircraft radar simulation and prediction. Today, DTED supports many applications, including line-of-sight analyses, terrain profiling, 3-D terrain visualization, mission planning/rehearsal, and modeling and simulations. DTED is a standard National Imagery and Mapping Agency (NIMA) product that provides quantitative data in digital format for military system applications.

Key Capabilities

DTED Levels 1 to 5 are produced from either a cartographic (hard-copy map) source, photogrammetric source or a combination of both. DTED Level 0 is produced by thinning DTED Level 1. Elevation posts are collected at regular intervals to produce a grid with uniform spacing between each post. DTED Levels 0, 1, and 2 have approximate post spacings of 1000, 100 and 30 meters, respectively. DTED Levels 3, 4, and 5 have approximate post spacings of 10, 3, and 1 meters, respectively.

Coordinate System/Datums/Structure/Format: The DTED coordinate reference system is geographic. The horizontal datum is World Geodetic System 1984 (WGS 84). The vertical datum is Mean Sea Level. The format is ASCII labeled variable length records.

Media: DTED Level 1 currently is distributed on 8 mm tape and CD-ROM.

Accuracy: NIMA has not provided an accuracy statement for DTED Level 0. Accuracies for Levels 1-5 are found below.

DTED Level	CE(ABS)	LE(ABS)	CE(REL)	LE(REL)
1	50 m	30 m	N/A	N/A
2	15 m	10 m	10 m	7 m
3*	10 m	10 m	3 m	2 m
4*	10 m	5 m	2 m	0.8 m
5*	5 m	5 m	0.5 m	0.33 m

*Accuracy values for DTED Levels 3-5 are proposed.

Production Information: Production time for new DTED Level 1 cells is approximately 283 days and production time for crisis support is approximately 29 days. The proposed crisis support production times per area size for DTED Levels 3 through 5 are the following: 18 hours for 20 kilometers (km) by 20 km area, 72 hours for 90 km by 90 km area, and 12 days for 300 km by 300 km area.

Current Status

To date, approximately 65 CD-ROMs of DTED Level 1 have been issued for $\frac{3}{4}$ of the world (North Africa, northern South America, Australia, and Greenland excluded). DTED Level 2 for most of the world (between 50 degrees N and S latitude was collected on the NASA Shuttle RADAR Topography Mission in 1999. Post-processing of the data is currently underway. Test cells will be available in early 2002 with widespread dissemination expected in 2003.

Point of Contact

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